

## Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1600RXA

**PASSWORD :**

TERMINAL (ENTER 1, 2, 3, OR ?):2

NEWS IPC8 For general information regarding STN implementation of IPC 8  
NEWS X25 X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that specific topic.

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FILE 'HOME' ENTERED AT 12:13:27 ON 05 MAR 2007

FILE 'CAPLUS' ENTERED AT 12:16:03 ON 05 MAR 2007  
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FILE COVERS 1907 - 5 Mar 2007 VOL 146 ISS 11  
FILE LAST UPDATED: 4 Mar 2007 (20070304/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s us20050222438/pn  
L1 1 US20050222438/PN  
      (US20050222438/PN)

=> d

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 20051078327 CAPLUS  
DN 143:349519  
TI Reverse Kleiner method for manufacturing nitrogen dioxide, nitric oxide,  
nitric acid, metallic ascorbates and alkyl ascorbates of vitamin C  
IN Kleiner, Bela  
PA USA  
SO U.S. Pat. Appl. Publ., 15 pp.  
CODEN: USXXCO  
DT Patent  
LA English  
PAN.CNT 1  
PATENT NO. KIND DATE APPLICATION NO. DATE  
----- ----- -----  
PI US 2005222438 A1 20051006 US 2004-814916 20040330  
<--  
PRAI US 2004-814916 20040330

```
=> select 11
ENTER ANSWER NUMBER OR RANGE (1-):1
ENTER DISPLAY CODE (TI) OR ?:rn
E1 THROUGH E7 ASSIGNED
```

```
=> fil caplus
COST IN U.S. DOLLARS
FULL ESTIMATED COST
```

	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	3.74	4.58

```
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FILE LAST UPDATED: 4 Mar 2007 (20070304/ED)

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```
=> s e1-e7
    98195 10102-43-9/BI
    30387 10102-44-0/BI
    2461 134-03-2/BI
    82423 50-81-7/BI
    839 6381-77-7/BI
    55098 7697-37-2/BI
    1905 89-65-6/BI
L2      252653 (10102-43-9/BI OR 10102-44-0/BI OR 134-03-2/BI OR 50-81-7/BI OR
          6381-77-7/BI OR 7697-37-2/BI OR 89-65-6/BI)
```

```
=> d scan 12
```

L2 252653 ANSWERS CAPIUS COPYRIGHT 2007 ACS on STN  
CC 49-3 (Industrial Inorganic Chemicals)  
TI Method for purification of nitrogen oxide and apparatus for purification  
of nitrogen oxide  
ST nitrogen oxide purifn absorption liquefaction concn vessel  
IT Absorption  
Concentration (process)  
Liquefaction  
(absorption and liquefaction process for purification of nitrogen  
oxide)  
IT Purification  
(apparatus; absorption and liquefaction process for purification of  
nitrogen  
oxide)  
IT 10024-97-2P, Nitrogen oxide (N<sub>2</sub>O) 10102-43-9P, Nitrogen oxide  
(NO) 10102-44-0P, Nitrogen oxide (NO<sub>2</sub>)  
RL: PUR (Purification or recovery); PREP (Preparation)  
(absorption and liquefaction process for purification of nitrogen  
oxide)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

```
=> s 134-03-2/rn
    2461 134-03-2
    16 134-03-2D
L3    2448 134-03-2/RN
      (134-03-2 (NOTL) 134-03-2D )
```

```
=> d
```

L3 ANSWER 1 OF 2448 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2007:203200 CAPLUS  
TI Nontoxic potentiation sensitization of ovarian cancer therapy by  
supplementary treatment with vitamins  
IN Gilloteaux, Jacques; Taper, Henryk S.; Jamison, James M.; Summers, Jack  
L.  
PA Summa Health System, USA  
SO U.S. Pat. Appl. Publ., 21pp., Cont.-in-part of U.S. Ser. No. 160,152.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2007043110	A1	20070222	US 2006-464295	20060814
US 2003073738	A1	20030417	US 2002-160152	20020603
US 7091241	B2	20060815		
PRAI US 2001-295025P	P	20010601		
US 2002-160152	A2	20020603		

```
=> fil reg
COST IN U.S. DOLLARS
          SINCE FILE      TOTAL
          ENTRY        SESSION
FULL ESTIMATED COST          20.21      24.79
```

FILE 'REGISTRY' ENTERED AT 12:17:43 ON 05 MAR 2007  
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Property values tagged with IC are from the ZIC/VINITI data file  
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STRUCTURE FILE UPDATES: 4 MAR 2007 HIGHEST RN 924728-01-8  
DICTIONARY FILE UPDATES: 4 MAR 2007 HIGHEST RN 924728-01-8

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TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when  
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REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> d his

(FILE 'HOME' ENTERED AT 12:13:27 ON 05 MAR 2007)

FILE 'CAPLUS' ENTERED AT 12:16:03 ON 05 MAR 2007
L1 1 S US20050222438/PN
 SELECT L1 1 RN

FILE 'CAPLUS' ENTERED AT 12:16:28 ON 05 MAR 2007
L2 252653 S E1-E7
L3 2448 S 134-03-2/RN

FILE 'REGISTRY' ENTERED AT 12:17:43 ON 05 MAR 2007

=> s e1-e7

1 10102-43-9/BI
 (10102-43-9/RN)
1 10102-44-0/BI
 (10102-44-0/RN)
1 134-03-2/BI
 (134-03-2/RN)
1 50-81-7/BI
 (50-81-7/RN)
1 6381-77-7/BI
 (6381-77-7/RN)
1 7697-37-2/BI
 (7697-37-2/RN)
1 89-65-6/BI
 (89-65-6/RN)
L4 7 (10102-43-9/BI OR 10102-44-0/BI OR 134-03-2/BI OR 50-81-7/BI OR

6381-77-7/BI OR 7697-37-2/BI OR 89-65-6/BI)

=> d 14 1-7

L4 ANSWER 1 OF 7 REGISTRY COPYRIGHT 2007 ACS on STN  
RN 10102-44-0 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Nitrogen oxide (NO2) (CA INDEX NAME)  
OTHER NAMES:  
CN Nitrite radical  
CN Nitrito  
CN Nitro  
CN Nitrogen dioxide  
CN Nitrogen dioxide (NO2)  
CN Nitrogen peroxide  
DR 127999-62-6, 56003-83-9, 119990-11-3, 66252-28-6, 78246-05-6, 50443-93-1  
MF N O2  
CI COM  
LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BIOSIS, BIOTECHNO, CA, CABAA, CAPIUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHM, CSNB, DDFU, DETHERM, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPAT, ENCOMPAT2, GMELIN, HSDB, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK, MSDS-OHS, PIRA, PROMT, RTECS, TOXCENTER, ULIDAT, USPAT2, USPATFULL, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*Enter CHEMLIST File for up-to-date regulatory information)

O—N=O

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

30348 REFERENCES IN FILE CA (1907 TO DATE)  
69 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
30387 REFERENCES IN FILE CAPIUS (1907 TO DATE)

L4 ANSWER 2 OF 7 REGISTRY COPYRIGHT 2007 ACS on STN  
RN 10102-43-9 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Nitrogen oxide (NO) (CA INDEX NAME)  
OTHER NAMES:  
CN Amidogen, oxo-  
CN INOmax  
CN Nitric oxide  
CN Nitric oxide (NO)  
CN Nitric oxide trimer  
CN Nitrogen monooxide  
CN Nitrogen monoxide  
CN Nitrogen oxide (N4O4)  
CN Nitrogen(II) oxide  
CN Nitrosyl radical  
CN OHM 11771  
DR 53851-19-7, 51005-20-0, 51005-21-1, 90452-29-2  
MF N O  
CI COM  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CABAA, CAPIUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHM, CSNB, DDFU, DETHERM, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPAT, ENCOMPAT2, GMELIN, HSDB, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK, MSDS-OHS, PIRA, PROMT, RTECS, TOXCENTER, ULIDAT, USPAT2, USPATFULL, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*Enter CHEMLIST File for up-to-date regulatory information)

N=O

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

97972 REFERENCES IN FILE CA (1907 TO DATE)  
552 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
98195 REFERENCES IN FILE CAPIUS (1907 TO DATE)

L4 ANSWER 3 OF 7 REGISTRY COPYRIGHT 2007 ACS on STN  
RN 7697-37-2 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Nitric acid (CA INDEX NAME)  
OTHER NAMES:  
CN Aqua fortis  
CN Azotic acid  
CN Fuming acid  
CN Hydrogen nitrate  
CN Nitral  
CN Nitric acid (HONO2)  
CN Nitryl hydroxide  
CN NSC 147791  
CN NSC 15203  
DR 802862-59-5, 78989-43-2, 218625-70-8  
MF H N O3  
CI COM  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOSIS, BIOTECHNO, CA, CABAA, CAPIUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHM, CSNB, DDFU, DETHERM, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPAT, ENCOMPAT2, GMELIN, HSDB, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK, MSDS-OHS, PIRA, PROMT, PS, RTECS, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*Enter CHEMLIST File for up-to-date regulatory information)

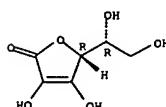
O= N—OH

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

54788 REFERENCES IN FILE CA (1907 TO DATE)  
2222 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
55094 REFERENCES IN FILE CAPIUS (1907 TO DATE)  
6 REFERENCES IN FILE CAIOLD (PRIOR TO 1967)

L4 ANSWER 4 OF 7 REGISTRY COPYRIGHT 2007 ACS on STN  
RN 6381-77-7 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN D-erythro-Hex-2-enonic acid,  $\gamma$ -lactone, monosodium salt (8CI, 9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Araboascorbic acid, monosodium salt, D- (6CI)  
OTHER NAMES:  
CN E 316  
CN Erbit N  
CN Erbitate N  
CN Erythorbic acid sodium salt  
CN Isona  
CN Mercate 20  
CN Neo-Cebitate  
CN Ozoban  
CN Sodium D-isoascorbate  
CN Sodium erythorbate  
CN Sodium isoascorbate  
CN Sodium Isovitamin C  
FS STEREOSEARCH  
DR 8003-96-1  
MF C6 H8 O6 . Na  
CI COM  
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN, BIOSIS, BIOTECHNO, CA, CABAA, CAPIUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, EMBASE, HSDB, IFICDB, IFIPAT, IFIUDB, IPA, MSDS-OHS, PIRA, PROMT, RTECS, TOXCENTER, USAN, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*Enter CHEMLIST File for up-to-date regulatory information)  
CRN (89-65-6)

Absolute stereochemistry.



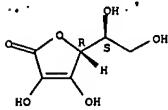
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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

837 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
839 REFERENCES IN FILE CAPIUS (1907 TO DATE)  
3 REFERENCES IN FILE CAIOLD (PRIOR TO 1967)

L4 ANSWER 5 OF 7 REGISTRY COPYRIGHT 2007 ACS on STN  
RN 134-03-2 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN L-Ascorbic acid, monosodium salt (8CI, 9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Ascorbic acid, sodium deriv. (6CI, 7CI)  
OTHER NAMES:  
CN 3-Oxo-L-gulofuranolactone sodium  
CN Ascorbic acid sodium salt  
CN Ascorbin  
CN Ascorbin  
CN ASK-P 10KR  
CN Cebitate  
CN Cenolate  
CN CK 40  
CN CK 40 (ascorbate)  
CN E 301  
CN E 301 (antioxidant)  
CN HBL 508  
CN Iskia C  
CN L-Ascorbic acid sodium salt  
CN Limase  
CN Monosodium ascorbate  
CN Monosodium L-ascorbate  
CN Nutri-corb  
CN Nutri-C  
CN Sodascorbate  
CN Sodium ascorbate  
CN Sodium L-ascorbate  
CN Vitamin C Na salt  
CN Vitamin C sodium  
FS STEREOSEARCH  
DR 884311-57-3, 129940-98-3, 156683-68-0  
MF C6 H8 O6 . Na  
CI COM  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMR, CHEMLIST, CIN, CSChem, DDFU, DRUGU, EMBASE, HSDB\*, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IPA, MRCK\*, MSDS-OHS, PIRA, PRMT, PS, RTECS\*, TOXCENTER, USAN, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*, WHO  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)  
CRN (50-81-7)

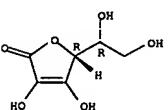
Absolute stereochemistry.



● Na

L4 ANSWER 6 OF 7 REGISTRY COPYRIGHT 2007 ACS on STN  
RN 89-65-6 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN D-erythro-Hex-2-enonic acid,  $\gamma$ -lactone (8CI, 9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN D-erythro-Hexonic acid, 3-keto-,  $\gamma$ -lactone (6CI)  
CN Erythorbic acid (7CI)  
OTHER NAMES:  
CN Araboascorbic acid  
CN Araboascorbic acid, D-  
CN D-(-)-Isoascorbic acid  
CN D-arabino-Ascorbic acid  
CN D-Araboascorbic acid  
CN D-Erythorbic acid  
CN D-Isoascorbic acid  
CN E 315  
CN Erycorbin  
CN Glucosaccharonic acid  
CN Isoascorbic acid  
CN Isovitamin C  
CN Mercate 5  
CN Neo-Cebicure  
CN NSC 8117  
CN Saccharosonic acid  
FS STEREOSEARCH  
DR 98966-42-8, 74242-57-2  
MF C6 H8 O6  
CI COM  
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMR, CHEMLIST, CIN, CSChem, DDFU, DRUGU, EMBASE, GMELIN\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, PIRA, PRMT, RTECS\*, SPECINFO, TOXCENTER, TULSA, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1900 REFERENCES IN FILE CA (1907 TO DATE)  
119 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
1905 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
30 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L4 ANSWER 5 OF 7 REGISTRY COPYRIGHT 2007 ACS on STN (Continued)

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2456 REFERENCES IN FILE CA (1907 TO DATE)  
16 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
2461 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
17 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L4 ANSWER 7 OF 7 REGISTRY COPYRIGHT 2007 ACS on STN

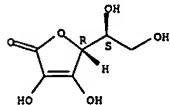
RN 50-81-7 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN (+)-Ascorbic acid  
CN 100M  
CN 3-keto-L-Gulofuranolactone  
CN 3-Oxo-L-gulofuranolactone  
CN Adenex  
CN Allercorb  
CN Antiscorpic vitamin  
CN Antiscorbutic vitamin  
CN Ascoltin  
CN Ascorbajen  
CN Ascorbic acid  
CN Ascorbicap  
CN Ascorbutina  
CN Ascorell  
CN Ascorin  
CN Ascorteal  
CN Ascorvit  
CN C-L 6/PW  
CN C-Quin  
CN C-Vimin  
CN Cantan  
CN Cantaxin  
CN Catavin C  
CN Ce-Mi-Lin  
CN Ce-Vi-Sol  
CN cebicure  
CN cebion  
CN cebione  
CN cecon  
CN cegiolan  
CN ceglion  
CN ceklin  
CN celaskon  
CN celin  
CN cell C  
CN cemagyl  
CN cenetone  
CN cereon  
CN cergona  
CN cescorbat  
CN cetamid  
CN cetane  
CN cetane-Caps TC  
CN cetebe  
CN ceteemican  
CN cevalin  
CN cevatin  
CN cevex  
CN cevimin  
CN cevital  
CN ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY  
FS STEREOSEARCH  
DR 884381-69-5, 885512-24-3, 623158-95-2, 56533-05-2, 57304-74-2, 57606-40-3, 56172-55-5, 129940-97-2, 14536-17-5, 50976-75-5, 154170-90-8, 89924-69-6,

L4 ANSWER 7 OF 7 REGISTRY COPYRIGHT 2007 ACS on STN (Continued)  
30208-61-8, 259133-78-3  
C6 H8 O6  
MF  
CI  
LC  
STN Files: ADRISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOSIS,  
BIOTECHNO, CR, CASB, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS,  
CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM\*, DRUGU,  
EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HSDB\*,  
IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IPA, MEDLINE, MRCK\*, MSDS-OHS,  
NAPRALERT, PHAR, PTRA, PRMT, PS, RTECS\*, SPECINFO, SYNTHLINE,  
TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINRCS\*, TSCA\*\*, WHO  
(\*Enter CHEMLIST file for up-to-date regulatory information)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

82247 REFERENCES IN FILE CA (1907 TO DATE)  
1828 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
82423 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
12 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> fil caplus			
COST IN U.S. DOLLARS	SINCE FILE	TOTAL	
	ENTRY	SESSION	
FULL ESTIMATED COST	15.00	39.79	

FILE 'CAPLUS' ENTERED AT 12:19:16 ON 05 MAR 2007  
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FILE COVERS 1907 - 5 Mar 2007 VOL 146 ISS 11  
 FILE LAST UPDATED: 4 Mar 2007 (20070304/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s 50-81-7/rn  
 82423 50-81-7  
 1832 50-81-7D  
 L5 81335 50-81-7/RN  
 (50-81-7 (NOTL) 50-81-7D )

=> s 15 and calcium  
 804880 CALCIUM  
 36 CALCIUMS  
 804883 CALCIUM  
 (CALCIUM OR CALCIUMS)  
 L6 6231 L5 AND CALCIUM

=> s 16 and calcium ascorbate  
 804880 CALCIUM  
 36 CALCIUMS  
 804883 CALCIUM  
 (CALCIUM OR CALCIUMS)  
 35135 ASCORBATE  
 625 ASCORBATES  
 35354 ASCORBATE  
 (ASCORBATE OR ASCORBATES)  
 409 CALCIUM ASCORBATE  
 (CALCIUM(W) ASCORBATE)  
 L7 234 L6 AND CALCIUM ASCORBATE

=> s 17 and nitrogen dioxide  
 642352 NITROGEN  
 3873 NITROGENS  
 645074 NITROGEN  
 (NITROGEN OR NITROGENS)

485654 DIOXIDE  
6710 DIOXIDES  
487352 DIOXIDE  
(DIOXIDE OR DIOXIDES)  
23314 NITROGEN DIOXIDE  
(NITROGEN(W) DIOXIDE)  
L8 0 L7 AND NITROGEN DIOXIDE

=> s 17 and nitric oxide  
183587 NITRIC  
3 NITRICS  
183590 NITRIC  
(NITRIC OR NITRICS)  
1735541 OXIDE  
353041 OXIDES  
1835361 OXIDE  
(OXIDE OR OXIDES)  
110370 NITRIC OXIDE  
(NITRIC(W) OXIDE)  
L9 0 L7 AND NITRIC OXIDE

=> s 17 and ascorbic acid  
84230 ASCORBIC  
4322646 ACID  
1571174 ACIDS  
4824578 ACID  
(ACID OR ACIDS)  
83530 ASCORBIC ACID  
(ASCORBIC(W) ACID)  
L10 181 L7 AND ASCORBIC ACID

=> d 110 1-10

L10 ANSWER 1 OF 181 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2007:15009 CAPLUS  
 DN 146:107684  
 TI Novel propofol compositions comprising ascorbic acid or its salts  
 IN Dixit, Suresh; Goyal, Sandhya; Okech, Frederick; Shek, Efraim  
 PA Taro Pharmaceuticals U.S.A., Inc., USA  
 SO PCT Int. Appl., 38pp.  
 CODEN: PIXKD2  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007000662	A2	20070104	WO 2006-IB1898	20060201
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BT, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRAI US 2005-649777P P 20050203

L10 ANSWER 2 OF 181 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2007:10991 CAPLUS  
 DN 146:107648  
 TI Composition for support of bladder health and boosting the immune system  
 PA Dr. Willmar Schwabe G.m.b.H. & Co. K.-G., Germany  
 SO Ger. Gebrauchsmusterschrift, 4pp.  
 CODEN: GGXXFR  
 DT Patent  
 LA German  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 202006014919	U1	20070104	DE 2006-202006014919	20060929

L10 ANSWER 3 OF 181 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2006:1348204 CAPLUS  
 DN 146:128468  
 TI Application of paramagnetic Mn heteropoly coordination compound in contrast medium of magnetic resonance imaging  
 IN Pei, Fengkui; Li, Zhongfeng; Li, Xiaojing; Li, Weisheng  
 PA Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Peop. Rep. China  
 SO Faming Zuanli Shengqing Gongkai Shuomingshu, 15pp.  
 CODEN: CNXXEV  
 DT Patent  
 LA Chinese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI CN 1879896	A	20061220	CN 2006-10016823	20060429

PRAI CN 2006-10016823

L10 ANSWER 4 OF 181 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2006:1309962 CAPLUS  
 DN 146:44567  
 TI Universal protein formulation meeting multiple dietary needs for optimal health and enhancing the human immune system  
 IN Robertson, Marion G.  
 PA USA  
 SO U.S. Pat. Appl. Publ., 29pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 200628040	A1	20061214	US 2005-135895	20050524

PRAI US 2005-135895

L10 ANSWER 5 OF 181 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2006:1221786 CAPLUS  
 DN 146:13153  
 TI Iodized lecithin soft capsule and its preparation  
 IN Wan, Liuyi  
 PA Wen, Guanghui, Peop. Rep. China  
 SO Faming Zuanli Shengqing Gongkai Shuomingshu, 7pp.  
 CODEN: CNXKEV  
 DT Patent  
 LA Chinese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI CN 1861057	A	20061115	CN 2006-10012274	20060615

PRAI CN 2006-10012274

L10 ANSWER 6 OF 181 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2006:1094123 CAPLUS  
 DN 145:426010  
 TI Nutrient composition for treating sarcoma and prostate cancer  
 IN Rath, Matthias; Roomi, M. Waheed; Ivanov, Vadim; Niedzwiecki, Aleksandra  
 PA Neth.  
 SO PCT Int. Appl., 26pp.  
 CODEN: PIKXD2

DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2006108429	A1	20061019	WO 2005-EP3766	20050411
W: AE, AG, AL, AM, AT, AU, A2, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRAI WO 2005-EP3766 20050411

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 181 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2006:1050240 CAPLUS  
 DN 145:363419  
 TI Method for preparation of antioxidant capsule with efficacy doubled by impregnating antioxidant into a microcapsule, antioxidant capsule prepared by this method and goods using antioxidant capsule  
 IN Lee, Jae Sik  
 PA S. Korea  
 SO Repub. Korean Kongkae Taeho Kongbo, No pp. given  
 CODEN: KRXXA7  
 DT Patent  
 LA Korean  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI KR 2006003777	A	20060111	KR 2004-52816	20040707

PRAI KR 2004-52816

L10 ANSWER 8 OF 181 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2006:912541 CAPLUS  
 DN 145:263351  
 TI Tocopherols, ascorbic acid, riboflavins, and CoQ10 for increasing blood CoQ10

IN Torisumi, Yasuhiro  
 PA Daichii Sankyo Healthcare Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 13pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2006232815	A	20060907	JP 2006-14687	20060124

PRAI JP 2005-16383

A 20050125

L10 ANSWER 9 OF 181 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:795605 CAPLUS

DN 145:209681

TI Spray-dried compositions and their uses

IN Subramaniam, Anandaraman

PA Firmenich SA, Switz.

SO PCT Int. Appl., 27pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2006082536	A1	20060810	WO 2006-IB50225	20060120
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TR				

PRAI US 2005-650181P P 20050203

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 10 OF 181 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:763023 CAPLUS

DN 145:174380

TI Oral compositions containing L-cysteine and ascorbic

acid for two-times daily administration

IN Okada, Minoru; Onuki, Yoichi; Kurasumi, Toshiaki; Otaki, Takashi

PA S. S. Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXKAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2006199640	A	20060803	JP 2005-14103	20050121
KR 2006085173	A	20060726	KR 2006-2745	20060110
CN 1839826	A	20061004	CN 2006-10001647	20060120
PRAI JP 2005-14103	A	20050121		

=> d his

(FILE 'HOME' ENTERED AT 12:13:27 ON 05 MAR 2007)

FILE 'CAPLUS' ENTERED AT 12:16:03 ON 05 MAR 2007  
L1 1 S US20050222438/PN  
SELECT L1 1 RN

FILE 'CAPLUS' ENTERED AT 12:16:28 ON 05 MAR 2007  
L2 252653 S E1-E7  
L3 2448 S 134-03-2/RN

FILE 'REGISTRY' ENTERED AT 12:17:43 ON 05 MAR 2007  
L4 7 S E1-E7

FILE 'CAPLUS' ENTERED AT 12:19:16 ON 05 MAR 2007  
L5 81335 S 50-81-7/RN  
L6 6231 S L5 AND CALCIUM  
L7 234 S L6 AND CALCIUM ASCORBATE  
L8 0 S L7 AND NITROGEN DIOXIDE  
L9 0 S L7 AND NITRIC OXIDE  
L10 181 S L7 AND ASCORBIC ACID

=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	35.32	75.11

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DICTIONARY FILE UPDATES: 4 MAR 2007 HIGHEST RN 924728-01-8

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TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> s 50-81-7  
L11 1 50-81-7  
(50-81-7/RN)

=> s 89-65-6  
L12 1 89-65-6  
(89-65-6/RN)

=> fil caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY	SESSION
	0.45	75.56

FILE 'CAPLUS' ENTERED AT 12:21:30 ON 05 MAR 2007  
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 FILE LAST UPDATED: 4 Mar 2007 (20070304/ED)

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<http://www.cas.org/infopolicy.html>

=> fil reg		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY	SESSION
	0.47	76.03

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 DICTIONARY FILE UPDATES: 4 MAR 2007 HIGHEST RN 924728-01-8

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TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

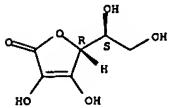
<http://www.cas.org/ONLINE/UG/regprops.html>

=> s calcium ascorbate  
93449 CALCIUM  
710 ASCORBATE  
L13 2 CALCIUM ASCORBATE  
(CALCIUM (W) ASCORBATE)

=> d 113 1-2

L13 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2007 ACS on STN  
 RN 5743-28-2 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN L-Ascorbic acid, calcium salt (2:1), dihydrate (8CI, 9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN Calcium ascorbate dihydrate  
 CN Calcium L-ascorbate dihydrate  
 FS STEREOSEARCH  
 DR 6381-95-9  
 MF C6 H8 O6 . 1/2 Ca . H2 O  
 LC STN Files: BIOSIS, CA, CAPIUS, CHEMCATS, CHEMLIST, CSCHEM, IFICDB,  
 IFIPAT, IFIUDB, TOXCENTER, USAN, USPAT2, USPATFULL  
 CRN (50-81-7)

Absolute stereochemistry.

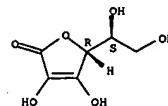


● 1/2 Ca

12 REFERENCES IN FILE CA (1907 TO DATE)  
 12 REFERENCES IN FILE CAPIUS (1907 TO DATE)

L13 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2007 ACS on STN  
 RN 5743-27-1 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN As-Cal  
 CN Ascalan  
 CN Ascorbic acid calcium salt  
 CN Ascorvit CA  
 CN Calcascorbin  
 CN Calci-C  
 CN Calcio  
 CN Calcio-Cl  
 CN Calcium ascorbate  
 CN Calscorbate  
 CN E 302  
 CN Erivit C  
 CN Hemicalcium ascorbate  
 CN L-Ascorbic acid calcium salt  
 FS STEREOSEARCH  
 DR 96653-51-9  
 MF C6 H8 O6 . 1/2 Ca  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOSIS, CA, CAOLD, CAPIUS,  
 CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, EMBASE, HSDB\*, IFICDB,  
 IFIPAT, IFIUDB, IPA, MRCK\*, PROMT, PS, TOXCENTER, USAN, USPAT2,  
 USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)  
 CRN (50-81-7)

Absolute stereochemistry.



● 1/2 Ca

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

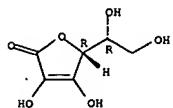
416 REFERENCES IN FILE CA (1907 TO DATE)  
 4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 416 REFERENCES IN FILE CAPIUS (1907 TO DATE)  
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s calcium isoascorbate  
93449 CALCIUM  
7 ISOASCORBATE  
L14 1 CALCIUM ISOASCORBATE  
(CALCIUM (W) ISOASCORBATE)

=> d 114

L14 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN  
RN 99552-34-8 REGISTRY  
ED Entered STN: 21 Dec 1985  
CN D-erythro-Hex-2-enonic acid,  $\gamma$ -lactone, calcium salt (9CI) (CA  
INDEX NAME)  
OTHER NAMES:  
CN Calcium isoascorbate  
FS STEREOSEARCH  
MF C6 H8 O6 . x Ca  
SR CA  
LC STN Files: BEILSTEIN\*, CA, CAPLUS, CHEMIST, TOXCENTER, USPAT2,  
USPATFULL  
(\*File contains numerically searchable property data)  
CRN (89-65-6)

Absolute stereochemistry.



●x Ca

4 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

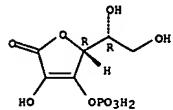
=> s calcium ascorbic acid  
93449 CALCIUM  
4141 ASCORBIC  
8108729 ACID  
8158 ACIDS  
8114634 ACID  
(ACID OR ACIDS)  
L15 0 CALCIUM ASCORBIC ACID  
(CALCIUM (W) ASCORBIC (W) ACID)

=> s calcium isoascorbic acid  
93449 CALCIUM  
13 ISOASCORBIC  
8108729 ACID  
8158 ACIDS  
8114634 ACID  
(ACID OR ACIDS)  
L16 1 CALCIUM ISOASCORBIC ACID  
(CALCIUM (W) ISOASCORBIC (W) ACID)

=> d 116

L16 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN  
RN 41236-00-4 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN D-erythro-Hex-2-enonic acid,  $\gamma$ -lactone, 3-(dihydrogen phosphate),  
calcium salt (1:1) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Monocalcium isoascorbic acid-3-phosphate  
FS STEREOSEARCH  
MF C6 H9 O9 P . Ca  
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL  
CRN (737700-26-4)

Absolute stereochemistry.



● Ca

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> fil caplus			
COST IN U.S. DOLLARS		SINCE FILE	TOTAL
		ENTRY	SESSION
FULL ESTIMATED COST		58.65	134.68

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=> s 113/p  
 L17 15 L13/P

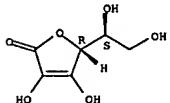
=> s 117 and 50-81-7/rn  
 82423 50-81-7  
 1832 50-81-7D  
 81335 50-81-7/RN  
 (50-81-7 (NOTL) 50-81-7D )  
 L18 10 L17 AND 50-81-7/RN

=> s 114/p  
 L19 1 L14/P

=> d ibib abs hitstr 118 1-10

L18 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2004:54428 CAPLUS  
 DOCUMENT NUMBER: 142:197081  
 TITLE: Preparation of calcium ascorbate by mechanochemical synthesis  
 AUTHOR(S): Du, Baon; Du, Yanjun; Wang, Lijuan; Wang, Maosheng;  
 CORPORATE SOURCE: College of Chemical + Environmental Science, Hebei University, Baoding, 071002, Peop. Rep. China  
 SOURCE: Shipin Gongye Keji (2002), 23(12), 38-39  
 CODEN: SGOKE6; ISSN: 1002-0306  
 PUBLISHER: Shipin Gongye Keji Bianjibu  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 AB Ca ascorbate was prepared by mechanochem. synthesis method from ascorbic acid and active Ca. The reaction process was modified by IR. All indexes of the product met the standard of the GB15809-1995 and USP(1995). Compared with other methods, the costs of production and equipment investment were very low, the period of production was very short, and the quality of the product was excellent. This technol. was suitable for industrial production  
 IT 50-81-7, Ascorbic acid, biological studies  
 RL: FFD (Food or feed use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
 (preparation of calcium ascorbate by mechanochem. synthesis ascorbic acid and active calcium)  
 RN 50-81-7 CAPLUS  
 CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

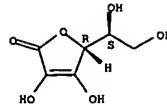
Absolute stereochemistry.



IT 5743-27-1P, Calcium ascorbate  
 RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of calcium ascorbate by mechanochem. synthesis ascorbic acid and active calcium)  
 RN 5743-27-1 CAPLUS  
 CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

L18 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



●1/2 Ca

L18 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2002:157178 CAPLUS  
 DOCUMENT NUMBER: 136:199024  
 TITLE: Microbial production of L-ascorbic acid and D-erythorbic acid  
 INVENTOR(S): Asakura, Akira; Hoshino, Tatsuo; Shinjoh, Masako  
 PATENT ASSIGNEE(S): Roche Vitamins Ag, Switz.  
 SOURCE: Eur. Pat. Appl., 19 pp.  
 CODEN: EPXXDW

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1182262	A1	20020227	EP 2001-119585	20010816
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
IN 193203	A1	20040717	IN 2001-M4697	20010820
AU 781277	B2	20050512	AU 2001-63544	20010820
CA 2355298	A1	20020223	CA 2001-2355298	20010821
NO 2001004082	A	20020225	NO 2001-4082	20010822
JP 2002101895	A	20020409	JP 2001-253335	20010823
BR 2001003639	A	20020416	BR 2001-125728	20010823
CN 1351171	A	20020529	CN 2001-125728	20010823
US 2003105160	A1	20030605	US 2001-938035	20010823
US 6777212	B2	20040817		

PRIORITY APPLN. INFO.: EP 2000-118059 A 20000823

AB A process for producing L-ascorbic acid or D-erythorbic acid or in each case its sodium, potassium or calcium salt, from 2-keto-L-gulonic acid or 2-keto-D-gluconic acid or in each case its sodium, potassium or calcium salt, involves incubating 2-keto-L-gulonic acid or 2-keto-D-gluconic acid, each as the free acid or as its sodium, potassium or calcium salt, and cells of a thermoacidophilic microorganism at temps. from about 30°C to about 100°C and at a pH from about 1 to about 6 in a solution to form L-ascorbic acid or D-erythorbic acid or an appropriate salt thereof, and isolating said product from the solution. L-Ascorbic acid (vitamin C) is widely used not only in health care as such but also in food, animal feed, e.g. fish feed, and cosmetics. D-Erythorbic acid is mainly used as an antioxidant for food additives.

IT 50-81-7P, L-Ascorbic acid, preparation 5743-27-1P, Calcium ascorbate  
 RL: BFM (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation)  
 (production of L-ascorbic acid and D-erythorbic acid by

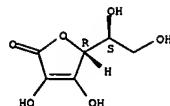
Alicyclobutene  
 strains)

RN 50-81-7 CAPLUS

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

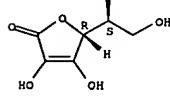
L18 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



●1/2 Ca

RN 5743-27-1 CAPLUS  
 CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

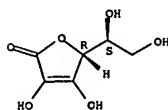


●1/2 Ca

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2007 ACS ON STN  
ACCESSION NUMBER: 1999:281632 CAPLUS  
DOCUMENT NUMBER: 131:68103  
TITLE: Calcium L-ascorbate synthesis and antioxidation  
AUTHOR(S): Zhou, You-Ya; Li, Ji-Hui; Gao, Feng-Ge; Li, Mei  
CORPORATE SOURCE: Department of Chemistry, Hebei Normal University,  
Shijiazhuang, 050091, Peop. Rep. China  
SOURCE: Hebei Shifan Daxue Xuebao, Ziran Kexueban (1999),  
23(1), 94-96  
CODEN: HSDKEG; ISSN: 1000-5854  
PUBLISHER: Hebei Shifan Daxue Xuebao Bianjibu  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese  
AB Calcium L-ascorbate was synthesized with L-ascorbic acid and CaCO<sub>3</sub>. The antioxidant of the compound on chicken and fish meat was examined. Results shown that this compound can preserve protein denaturation through its antioxidant.  
IT 5743-27-1P, Calcium ascorbate  
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(calcium L-ascorbate synthesis and antioxidant.)  
RN 5743-27-1 CAPLUS  
CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

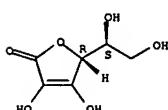
### Absolute stereochemistry.



• 1/2 Ca

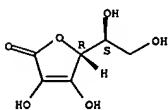
IT 50-81-7, L-Ascorbic acid, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(calcium L-ascorbate synthesis and antioxidant.)  
RN 50-81-7 CAPLUS  
CN L-Ascorbic acid (BCL, 9CT) (CA INDEX NAME)

### Absolute stereochemistry



511

L18 ANSWER 4 OF 10 CAPIUS COPYRIGHT 2007 ACS on STN (Continued)

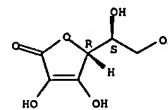


L18 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1997:41547 CAPLUS  
DOCUMENT NUMBER: 126:60281  
TITLE: Process for preparing calcium ascorbate  
INVENTOR(S): Kochetkova, Larisa I.; Chumakov, Sergej I.; Ionin, Vladimir N.; Rudenko, Anna A.; Istromina, Lyudmila I.; Veterkhanov, Suyupay R.  
PATENT ASSIGNEE(S): Aktsionernoje Obshchestvo Otkrytogo Tipa  
"belgorodvitminy", Russia  
SOURCE: Russ. From: Izobreteniya 1996, (9), 223-224.  
CODEN: RUXKE7  
DOCUMENT TYPE: Patent  
LANGUAGE: Russian  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2057128	C1	19960327	RU 1992-5040908	19920506
PRIORITY APPLN. INFO.:			SU 1992-5040908	A 19920506

OTHER SOURCE(S): CASREACT 126:60281  
AB Title only translated.  
IT 5743-27-1P, Calcium ascorbate  
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP  
(Preparation)  
((preparation of calcium ascorbate))  
RN 5743-27-1 CAPLUS  
CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

### Absolute stereochemistry



• 1/2 C.

IT 50-81-7, Ascorbic acid, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent  
(preparation of calcium ascorbate)  
RN 50-81-7 CAPLUS  
CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

### Absolute stereochemistry

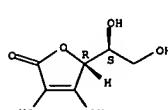
L18 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1996:194730 CAPLUS  
DOCUMENT NUMBER: 124:242304  
TITLE: Preparation of calcium ascorbate from ascorbic acid  
INVENTOR(S): Wen, Sujie; Huo, Yulan; Wu, Hongbin  
PATENT ASSIGNEE(S): Zhongnan New Technology Inst., P.L.A., Peop. Rep. China  
SOURCE: Faming Zhanhui Shengqing Gongkai Shuomingshu, 10 pp.  
DOCUMENT TYPE: Patent  
LANGUAGE: Chinese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1107845	A	19950906	CN 1994-100392	19940113
CN 1044706	B	19990818		
PRIORITY APPLN. INFO.:			CN 1994-100392	19940113

AB Calcium ascorbate for medical use is prepared from ascorbic acid by dissolving ascorbic acid in hot water, treating with calcium phosphate and then with lime milk to pH 4.5-7, filtering under reduced pressure, concentrating the liquid phase, crystallizing, centrifuging to sep. the crystals, washing with ethanol, and drying at 50-60° under reduced pressure or at regular pressure. The yield was 94-98.5% and purity ≥98.5%.

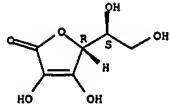
IT 50-81-7, Ascorbic acid, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of calcium ascorbate from ascorbic acid)

RN 50-81-7 CAPLUS  
CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)



IT 5743-27-1P, Calcium ascorbate  
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of calcium ascorbate from ascorbic acid)  
RN 5743-27-1 CAPLUS  
CN L-ascorbic acid-calcium salt (2:1) (SGL, SGL) (SGL INDEX NAME)

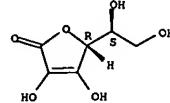
11. L-ASCORBIC acid, cat.



●1/2 Ca

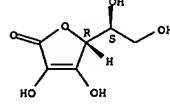
L18 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1991:134809 CAPLUS  
 DOCUMENT NUMBER: 114:134809  
 TITLE: Mechanosynthesis of ascorbic acid salts  
 AUTHOR(S): Chuev, V. P.; Belova, V. M.; Ivanov, E. Yu.  
 CORPORATE SOURCE: IKhTTIMs, Belgorod, USSR  
 SOURCE: Mekhanokhim. Sint., Dokl. Vses. Nauchno-Tekh. Konf. (1990), 172-5. Editor(s): Butyagin, P. Yu. Izd. Dal'nevost. Univ.: Vladivostok, USSR.  
 CODEN: 56YJAG  
 DOCUMENT TYPE: Conference  
 LANGUAGE: Russian  
 AB Mechanocomp. activation of ascorbic acid (HL) with  $MHCO_3$  ( $M = Na, K$ ),  $MOH$ ,  $M_2CO_3$ ,  $Ca(OH)_2$ , and  $CaO$  gave  $ML$  and  $CaL_2$ .  $Ca(OH)_2$  and  $CaO$  required the presence of  $H_2O$  for reaction.  $CaCO_3$ ,  $FeO$ , and  $Fe(OH)_2$  did not react.  
 IT 50-81-7, Ascorbic acid, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (mechanochem. reaction of, with calcium and potassium and sodium salts)  
 RN 50-81-7 CAPLUS  
 CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 5743-27-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, by mechanochem. reaction of ascorbic acid with salts)  
 RN 5743-27-1 CAPLUS  
 CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



●1/2 Ca

L18 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1988:43899 CAPLUS  
 DOCUMENT NUMBER: 108:43899  
 TITLE: Preliminary study on the synthesis and stability of calcium ascorbate  
 AUTHOR(S): Xin, Mingming  
 CORPORATE SOURCE: Sci. Res. Inst. Food Ferment. Ind., Minist. Light Ind., Beijing, Peop. Rep. China  
 SOURCE: Shiplin Yu Fajiao Gongye (1987), (4), 25-8  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 AB Ca ascorbate (I) was prepared by reaction of ascorbic acid (II) with  $CaCO_3$ .

The stability of I was better than II in a storage test at room temperature for 56 mo. Both I and II were stable as additives in honey, sucrose, and starch and had antioxidant properties.

IT 50-81-7, Ascorbic acid, properties

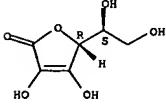
RL: PRP (Properties)

(antioxidant property and stability of)

RN 50-81-7 CAPLUS

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

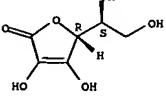


IT 5743-27-1P, Calcium ascorbate  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and stability and antioxidant property of)

RN 5743-27-1 CAPLUS

CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



●1/2 Ca

L18 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1988:26949 CAPLUS

DOCUMENT NUMBER: 108:26949

TITLE: Fluorocarbon blood substitutes

INVENTOR(S): Long, David M., Jr.

PATENT ASSIGNEE(S): USA

SOURCE: Eur. Pat. Appl., 10 pp.

PATENT INFORMATION: CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 231070	A2	19870805	EP 1987-300248	19870113
EP 231070	A3	19870923		
EP 231070	B1	19890610		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
US 4965836	A	19890912	US 1986-818690	19860114
NO 8700130	A	19870715	NO 1987-130	19870113
NO 173214	B	19930809		
NO 173214	C	19931117		
AU 8767516	A	19870716	AU 1987-67516	19870113
AU 599068	B2	19900712		
AT 167054	T	19890615	AT 1987-300248	19870113
ES 2120400	T3	19881010	ES 1987-300248	19870113
ZA 8700252	A	19871125	ZA 1987-252	19870114
JP 01139526	A	19890601	JP 1987-5201	19870114
CA 1279011	C	19910115	CA 1987-527330	19870114
WO 9100090	A1	19910110	WO 1989-US2948	19890705
W: AU, JP				
RU: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8939649	A	19910117	AU 1989-39649	19890705
CA 1338854	C	19970121	CA 1989-604769	19890705
US 5080885	A	19920114	US 1989-387947	19890824
US 5393513	A	19950228	US 1993-100664	19930730
PRIORITY APPLN. INFO.:			US 1986-818690	A 19860114
			EP 1987-300248	19870113
			WO 1989-US2948	A 19890705
			US 1989-387947	AI 19890824
			US 1991-811026	BL 19911219

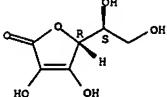
AB Perfluorocarbon emulsion blood substitutes contain an aqueous phase and a brominated perfluorocarbon-based monaq. phase that contains an emulsifier and a biocompatible amount of a compound chosen from cholesterol, tocopherol, and/or a steroid hormone. After heat sterilization, 95% of the emulsified bromoperfluorocarbon exists (as the non-frozen emulsion) as particle size <400 nm with mean diameter <150 nm. after 1 mo. A perfluorocarbon emulsion was prepared, containing perfluorooctyl bromide 100, lecithin 9.1, 6a-fluoro-16a-methylprednisolone 0.02,  $\alpha$ -tocopherol 0.2, glycerol 1.0, Na diphosphate 0.012, and Na phosphate 0.057% (weight/volume ratio), in a micromixer at 15 cycles of separation and redirection of flows at

L18 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
>1500 ft/s. The particle size distribution showed 2 peaks at 84.2-87.2  
(major) and 200.0-252.6 nm which did not change after sterilization at  
90° for 15 min.

IT 50-81-7P, Ascorbic acid, biological studies 5743-27-1P,  
Calcium ascorbate  
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological  
study); PREP (Preparation); USES (Uses)  
(blood substitutes containing, bromoperfluorocarbon emulsion-based,  
preparation  
and stabilization of)

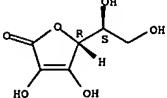
RN 50-81-7 CAPLUS  
CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

### Absolute stereochemistry.



RN 5743-27-1 CAPLUS  
CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

### Absolute stereochemistry.



● 1/2 Ca

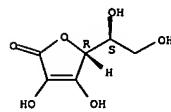
L18 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2007 ACS ON STN  
ACCESSION NUMBER: 1985:154796 CAPLUS  
DOCUMENT NUMBER: 102:154796  
TITLE: Physiologically active preparation for decreasing the  
plasma cholesterol level  
INVENTOR(S): Kubec, Frantisek; Ginter, Emil  
PATENT ASSIGNEE(S): Czech.  
SOURCE: Czech., 6 pp.  
CODEN: CZXXA9  
DOCUMENT TYPE: Patent  
LANGUAGE: Czech  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CS 212525	Bl	19820326	CS 1979-4794	19790705
PRIORITY, BERLIN, INFO			CS 1979-4794	19790705

AB Anticholesteremic compns. were formulated containing ascorbic acid [50-81-7] or its salts, a fibrous nondigestible component, preservative, stabilizer, and flavorant. They are also useful for the treatment of gastrointestinal disorders. Thus, a powdered mixture of Ca ascorbate [5743-27-1] 3.63, guar polymer 90, Na benzoate 0.1, and orange flavor 1 was granulated with an aqueous 50% solution containing glucose

5.27 parts  
IT 50-81-7P, preparation 5743-27-1P  
RL: PREP (Preparation)  
(anticholesteremic pharmaceuticals containing)  
RN 50-81-7 CAPLUS  
CN 1-Deoxyglucitol 1657-9511 (CD INDEX NAME)

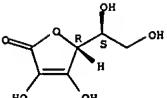
### Absolute stereochemistry



RN 5743-27-1 CAPLUS  
CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

### Absolute stereochemistry.

L18 ANSWER 9 OF 10 CACPLUS COPYRIGHT 2007 ACS on STN (continued)



1/3 63

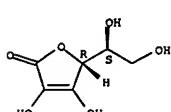
L18 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1981:425535 CAPLUS  
DOCUMENT NUMBER: 95:25535  
TITLE: Solid crystalline composition consisting essentially  
of calcium ascorbate  
INVENTOR(S): Schreier, Clarence  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S., 4 pp. Cont.-in-part of U.S. Ser. No. 595,234,  
abandoned.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4251149	A	19801021	US 1979-9480	19792025
CA 1137095	A1	19821207	CA 1980-359203	19800828
FR 2497804	A1	19820716	FR 1981-553	19810114
DE 3100955	A1	19820805	DE 1981-3100955	19810114
GB 2091267	A	19820728	GB 1981-1168	19810115
BE 887130	A1	198010514	BE 1981-203524	19810119
NL 8102097	A	19820816	NL 1981-297	19810222
PRIORITY APPLICATION INFO:				
			US 1975-595234	A2 198102112222

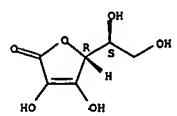
AB Ascorbic acid was treated with  $\text{CaCO}_3$  in aqueous medium at  $\leq 70^\circ$ , under controlled conditions so that the reaction mixture was maintained saturated with  $\text{CO}_2(g)$  and  $\text{CO}_2$  foam blanket was maintained over the reaction mixture to give a syrupy product, which spontaneously crystallized to give solid crystalline mass consisting essentially of Ca ascorbate.  
IT 5743-27-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, from ascorbic acid and calcium carbonate)  
RN 5743-27-1 CAPLUS

CN L-Ascorbic acid, cal



1/2 Ca

IT 50-81-7, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with calcium carbonate)  
RN 50-81-7 CAPLUS  
CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)



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(FILE 'HOME' ENTERED AT 12:13:27 ON 05 MAR 2007)

FILE 'CAPLUS' ENTERED AT 12:16:03 ON 05 MAR 2007

L1 1 S US20050222438/PN  
SELECT L1 1 RN

FILE 'CAPLUS' ENTERED AT 12:16:28 ON 05 MAR 2007

L2 252653 S E1-E7  
L3 2448 S 134-03-2/RN

FILE 'REGISTRY' ENTERED AT 12:17:43 ON 05 MAR 2007

L4 7 S E1-E7

FILE 'CAPLUS' ENTERED AT 12:19:16 ON 05 MAR 2007

L5 81335 S 50-81-7/RN  
L6 6231 S L5 AND CALCIUM  
L7 234 S L6 AND CALCIUM ASCORBATE  
L8 0 S L7 AND NITROGEN DIOXIDE  
L9 0 S L7 AND NITRIC OXIDE  
L10 181 S L7 AND ASCORBIC ACID

FILE 'REGISTRY' ENTERED AT 12:21:11 ON 05 MAR 2007

L11 1 S 50-81-7  
L12 1 S 89-65-6

FILE 'CAPLUS' ENTERED AT 12:21:30 ON 05 MAR 2007

FILE 'REGISTRY' ENTERED AT 12:21:40 ON 05 MAR 2007

L13 2 S CALCIUM ASCORBATE  
L14 1 S CALCIUM ISOASCORBATE  
L15 0 S CALCIUM ASCORBIC ACID  
L16 1 S CALCIUM ISOASCORBIC ACID

FILE 'CAPLUS' ENTERED AT 12:23:12 ON 05 MAR 2007

L17 15 S L13/P  
L18 10 S L17 AND 50-81-7/RN  
L19 1 S L14/P

=> d ibib abs hitstr 119

ACCESSION NUMBER: 2002:157178 CAPLUS

DOCUMENT NUMBER: 136:199024

TITLE: Microbial production of L-ascorbic acid and

D-erythorbic acid

INVENTOR(S): Asakura, Akira; Hoshino, Tatsuo; Shinjoh, Masako

PATENT ASSIGNEE(S): Roche Vitamins Ag, Switz.

SOURCE: Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1182262	A1	20020227	EP 2001-119585	20010816
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
IN 193203	A1	20040717	IN 2001-M4687	20010820
AU 781277	B2	20050512	AU 2001-63544	20010820
CA 2355298	A1	20020223	CA 2001-2355298	20010821
NO 200104082	A	20020225	NO 2001-4082	20010822
JP 2002101895	A	20020409	JP 2001-253335	20010823
BR 200103639	A	20020416	BR 2001-3639	20010823
CN 1351171	A	20020529	CN 2001-125728	20010823
US 2003105160	A1	20030605	US 2001-938035	20010823
US 6777212	B2	20040817		

PRIORITY APPN. INFO.: EP 2000-118059 A 20000823

AB A process for producing L-ascorbic acid or D-erythorbic acid or in each case its sodium, potassium or calcium salt, from 2-keto-L-gulonic acid or 2-keto-D-gluconic acid or in each case its sodium, potassium or calcium salt, involved incubating 2-keto-L-gulonic acid or 2-keto-D-gluconic acid,

each as the free acid or as its sodium, potassium or calcium salt, and cells of a thermoacidophilic microorganism at temps. from about 30°C to about 100°C and at a pH from about 1 to about 6 in a solution to form L-ascorbic acid or D-erythorbic acid or an appropriate

salt thereof, and isolating said product from the solution. L-Ascorbic acid (vitamin C) is widely used not only in health care as such but also in food, animal feed, e.g. fish feed, and cosmetics. D-Erythorbic acid is mainly used as an antioxidant for food additives.

IT 99552-34-8P

RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation)

(production of L-ascorbic acid and D-erythorbic acid by

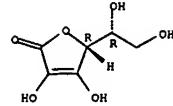
Alicyclobacillus

strains)

RN 99552-34-8 CAPLUS

CN D-erythro-Hex-2-enonic acid,  $\gamma$ -lactone, calcium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



•x Ca

REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

=> log y  
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	63.40	198.08

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-8.58	-8.58

STN INTERNATIONAL LOGOFF AT 12:24:43 ON 05 MAR 2007